c) the core of the yarn is passed through said die, with a peripheral distribution of the plastisol around said core;

d) the rheological properties of the plastisol at the shear rate of the die, at least equal to 20 000 s^{-1}, are adapted by formulating said ungelled plastisol so that at low shear rate, at most equal to 400 s^{-1}, it exhibits a Newtownian-type behaviour, with a viscosity of less than or equal to 6 000 mPa.s, measured with a Brookfield RVT viscometer at 20 rpm, and at high shear rate, at least equal to 10 000 s^{-1}, it exhibits a pseudoplastic-type behaviour;

e) the gelling of the fire-retarded composition is carried out.--

--15. The process as claimed in claim 14, characterized in that the weight proportion of the plasticizing medium in the plastisol comprising a phthalate is at most equal to 200% with respect to the weight of acrylic resin and/or the weight proportion of the intumescent agent is at most equal to 200% with respect to the weight of acrylic resin.--

--16. The process as claimed in claim 14, characterized in that the plasticizing medium comprises predominantly, by weight, an organic phosphate.--

--17. The process as claimed in claim 14, characterized in that the proportion by weight of the plasticizing medium in the plastisol is between 100 and 200%, and preferably between 120 and 145%, by weight of resin.--

--18. The composition as claimed in claim 14, characterized in that the proportion by weight of the intumescent agent in the plastisol is between 50 and 200%, and preferably between 150 and 200%, by weight of resin.--

--19. A flame-retarded composite yarn with a sheath made of resin and of low combustibility, for example a halogen-free material, characterized in that it is capable of being obtained by the process as claimed in claim 14.--

--20. The yarn as claimed in claim 19, characterized in that the material of the core is a continuous glass filament.--